

Untitled.ST25
SEQUENCE LISTING

<110> Auckland UniServices Limited
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Fraser, John

<120> SET1 Proteins and Uses Therefor

<130> SHR504430/142

<150> AU2004901570

<151> 2004-03-24

<160> 13

<170> PatentIn version 3.1

<210> 1

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<212> PRT

<213> Staphylococcus aureus subsp. NCTC8325

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Lys Gln Glu Arg Val Gln His Leu His Asp Ile Arg Asp Leu His Arg
35 40 45

Tyr Tyr Ser Ser Glu Ser Phe Glu Tyr Ser Asn Val Ser Gly Lys Val
50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Pro Lys Asp Gln
65 70 75 80

Asn His Gln Leu Phe Leu Leu Gly Lys Asp Lys Glu Gln Tyr Lys Glu
85 90 95

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Gly Leu Gln Gly Gln Asn Val Phe Val Val Gln Glu Leu Ile Asp Pro
 100 105 110

Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys
 115 120 125

Thr Ser Glu Thr Asn Thr Pro Leu Phe Val Asn Lys Val Asn Gly Glu
 130 135 140

Asp Leu Asp Ala Ser Ile Asp Ser Phe Leu Ile Gln Lys Glu Glu Ile
 145 150 155 160

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln Gln Leu Val Asn Asn
 165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Ser Lys Tyr Gly Lys Ile Ile Ile Asn
 180 185 190

Leu Lys Asp Glu Asn Lys Val Glu Ile Asp Leu Gly Asp Lys Leu Gln
 195 200 205

Phe Glu Arg Met Gly Asp Val Leu Asn Ser Lys Asp Ile Arg Gly Ile
 210 215 220

Ser Val Thr Ile Asn Gln Ile
 225 230

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<212> PRT

<213> staphylococcus aureus

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Met Lys Leu Lys Thr Leu Ala Lys Ala Thr Leu Ala Leu Gly Leu Leu
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Thr Thr Gly Val Ile Thr Ser Glu Gly Gln Ala Val Gln Ala Ala Glu
 20 25 30

Lys Gln Glu Arg Val Gln His Leu His Asp Ile Arg Asp Leu His Arg
 35 40 45

Tyr Tyr Ser Ser Glu Ser Phe Glu Tyr Ser Asn Val Ser Gly Lys Val
 50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Pro Lys Asp Gln
 65 70 75 80

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Asn His Gln Leu Phe₈₅ Leu Leu Gly Lys Asp₉₀ Lys Glu Gln Tyr Lys₉₅ Glu
 Gly Leu Gln Gly₁₀₀ Gln Asn Val Phe₁₀₅ Val Gln Glu Leu Ile₁₁₀ Asp Pro
 Asn Gly Arg₁₁₅ Leu Ser Thr Val Gly₁₂₀ Gly Val Thr Lys₁₂₅ Lys Asn Asn Lys
 Thr Ser₁₃₀ Glu Thr Asn Thr Pro₁₃₅ Leu Phe Val Asn₁₄₀ Lys Val Asn Gly Glu
 Asp₁₄₅ Leu Asp Ala Ser Ile₁₅₀ Asp Ser Phe Leu Ile₁₅₅ Gln Lys Glu Glu Ile₁₆₀
 Ser Leu Lys Glu Leu₁₆₅ Asp Phe Lys Ile Arg₁₇₀ Gln Gln Leu Val Asn₁₇₅ Asn
 Tyr Gly Leu Tyr₁₈₀ Lys Gly Thr Ser Lys₁₈₅ Tyr Gly Lys Ile Ile₁₉₀ Ile Asn
 Leu Lys Asp₁₉₅ Glu Asn Lys Val Glu₂₀₀ Ile Asp Leu Gly Asp₂₀₅ Lys Leu Gln
 Phe Glu₂₁₀ Arg Met Gly Asp Val₂₁₅ Leu Asn Ser Lys Asp₂₂₀ Ile Arg Gly Ile
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<212> PRT

<213> Staphylococcus aureus subsp. aureus N315

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 20 25 30
 Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu Tyr Arg
 35 40 45
 Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly Lys Val
 50 55 60

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Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu Lys Gln
65 70 75 80

Asn His Gln Leu Phe Leu Leu Gly Lys Asp Lys Asp Lys Tyr Lys Lys
85 90 95

Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile Asp Pro
100 105 110

Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys
115 120 125

Ser Ser Glu Thr Asn Thr His Leu Phe Val Asn Lys Val Tyr Gly Gly
130 135 140

Asn Leu Asp Ala Ser Ile Asp Ser Phe Leu Ile Asn Lys Glu Glu Val
145 150 155 160

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Lys Gln Leu Val Glu Lys
165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr Ile Asn
180 185 190

Leu Lys Asp Glu Lys Lys Glu Val Ile Asp Leu Gly Asp Lys Leu Gln
195 200 205

Phe Glu Arg Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln Asn Ile
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Ala Val Thr Ile Asn Gln Ile
225 230

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<213> staphylococcus aureus subsp. aureus Mu50

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Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu Tyr Arg
35 40 45

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Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly Lys Val
 50 55 60
 Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu Lys Gln
 65 70 75 80
 Asn His Gln Leu Phe Leu Leu Gly Lys Asp Lys Asp Lys Tyr Lys Lys
 85 90 95
 Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile Asp Pro
 100 105 110
 Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys
 115 120 125
 Ser Ser Glu Thr Asn Thr His Leu Phe Val Asn Lys Val Tyr Gly Gly
 130 135 140
 Asn Leu Asp Ala Ser Ile Asp Ser Phe Leu Ile Asn Lys Glu Glu Val
 145 150 155 160
 Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Lys Gln Leu Val Glu Lys
 165 170 175
 Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr Ile Asn
 180 185 190
 Leu Lys Asp Glu Lys Lys Glu Val Ile Asp Leu Gly Asp Lys Leu Gln
 195 200 205
 Phe Glu Arg Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln Asn Ile
 210 215 220
 Ala Val Thr Ile Asn Gln Ile
 225 230

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<213> staphylococcus aureus subsp. aureus MW2

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 20 25 30

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Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu His Arg
 35 40 45

Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly Lys Val
 50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu Asn Gln
 65 70 75 80

Asn His Gln Leu Phe Leu Ser Gly Lys Asp Lys Asp Lys Tyr Lys Glu
 85 90 95

Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile Asp Pro
 100 105 110

Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Gln
 115 120 125

Ser Ser Glu Thr Asn Thr Pro Leu Phe Ile Lys Lys Val Tyr Gly Gly
 130 135 140

Asn Leu Asp Ala Ser Ile Glu Ser Phe Leu Ile Asn Lys Glu Glu Val
 145 150 155 160

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln His Leu Val Lys Asn
 165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr Phe Asn
 180 185 190

Leu Lys Asp Gly Glu Lys Gln Glu Ile Asp Leu Gly Asp Lys Leu Gln
 195 200 205

Phe Glu His Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln Asn Ile
 210 215 220

Ala Val Thr Ile Asn Gln Ile
 225 230

<210> 6

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<212> PRT

<213> S.aureus

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His Arg Tyr Tyr Ser Ser Glu Ser Phe Asp Phe Ser Asn Ile Ser Gly
 20 25 30
 Lys Val Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Asp
 35 40 45
 Gly Gln Asn His Gln Leu Phe Leu Leu Gly Glu Asp Lys Ala Lys Tyr
 50 55 60
 Lys Gln Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile
 65 70 75 80
 Asp Pro Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn
 85 90 95
 Asn Gln Ser Ser Glu Thr Asn Thr Pro Leu Phe Val Lys Lys Val Tyr
 100 105 110
 Gly Gly Asn Leu Asp Ala Ser Ile Glu Ser Phe Ser Ile Asn Lys Glu
 115 120 125
 Glu Val Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln His Leu Val
 130 135 140
 Lys Asn Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr
 145 150 155 160
 Phe Asn Leu Lys Asp Gly Glu Lys Lys Glu Ile Asp Leu Gly Asp Lys
 165 170 175
 Leu Gln Phe Glu His Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln
 180 185 190
 Asn Ile Ala Val Thr Leu Lys Gln Ile
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<210> 7

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<213> S.aureus

<400> 7

Lys Glu Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu
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 His Arg Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly
 20 25 30

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Lys Val Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu
 35 40 45
 Lys Gln Asn His Gln Leu Phe Leu Leu Gly Glu Asp Lys Ala Lys Tyr
 50 55 60
 Lys Gln Gly Leu Gln Gly Gln Asp Val Phe Val Val Lys Glu Leu Ile
 65 70 75 80
 Asp Pro Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn
 85 90 95
 Asn Gln Ser Ser Glu Thr Asn Ile His Leu Leu Val Asn Lys Leu Asp
 100 105 110
 Gly Gly Asn Leu Asp Ala Thr Asn Asp Ser Phe Leu Ile Asn Lys Glu
 115 120 125
 Glu Val Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Lys Gln Leu Val
 130 135 140
 Glu Lys Tyr Gly Leu Tyr Gln Gly Thr Ser Lys Tyr Gly Lys Ile Thr
 145 150 155 160
 Ile Ile Leu Asn Gly Gly Lys Lys Gln Glu Ile Asp Leu Gly Asp Lys
 165 170 175
 Leu Gln Phe Glu Arg Met Gly Asp Val Leu Asn Ser Lys Asp Ile Asn
 180 185 190
 Lys Ile Glu Val Thr Leu Lys Gln Ile
 195 200

<210> 8

<211> 696

<212> DNA

<213> Staphylococcus aureus subsp. aureus NCTC6571

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 catgatatta gagatttaca tcgatactac tcatcagaaa gtttcgaata tagtaatgtt 180
 agtggttaagg ttgaaaacta caatggttct aacgttgtac gctttaaccc aaaagatcaa 240
 aatcaccaat tattcttatt aggaaaagat aaagaacaat ataaagaagg tctacaaggc 300
 caaatgtct ttgtagtaca agaattaatt gatccaaacg gcagactatc tactgttggt 360

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ggtgtaacga agaaaaacaa caaaacttct gaaactaata cacctttatt tgtaataaaa 420
gttaatggtg aagatttaga tgcattcaatt gactcatttt taatccaaaa agaagaaatc 480
tcattaaaag agcttgattt caaaattaga caacaattag ttaataatta cggattatat 540
aaaggtacat ctaaatacgg taaaatcatt atcaatttga aagacgaaaa taaagtagaa 600
attgatttag gtgataaatt acaattcgag cgcattggcg atgtgttgaa tagtaaagac 660
attagaggta tatcagtcac tattaaccaa atttaa 696

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<210> 9

<211> 696

<212> DNA

<213> Staphylococcus aureus subsp. aureus N315

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tatgatatta aagacttata tcgatactac tcatcagaaa gttttgaatt cagtaatatt 180
agtggtaagg ttgaaaacta taacggttct aacgttgtac gctttaacca agaaaaacaa 240
aatcaccaat tattcttatt aggaaaagat aaagataaat ataaaaagg ccttgaaggc 300
cagaatgtct ttgtggtaaa agaattaatt gatccaaacg gtagactatc tactgttggt 360
ggtgtgacta agaaaaataa caaatcttct gaaactaata cacatttatt tgtaataaaa 420
gtgtatggcg gaaatttaga tgcattcaatt gactcatttt taattaataa agaagaagtt 480
tactgaaag aacttgattt caaaattaga aagcaattag ttgaaaaata tggtttatat 540
aaaggtacga ctaaatacgg taagatcact atcaatttga aagacgagaa aaaggaagta 600
attgatttag gtgataaact gcaattcgag cgcattgggtg atgtgttgaa tagtaaggat 660
attcaaaata tagcagtgac tattaatcaa atttaa 696

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<210> 10

<211> 696

<212> DNA

<213> Staphylococcus aureus subsp. aureus Mu50

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tatgatatta aagacttata tcgatactac tcatcagaaa gttttgaatt cagtaatatt 180
agtggtaagg ttgaaaacta taacggttct aacgttgtac gctttaacca agaaaaacaa 240

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aatcaccaat tattcttatt aggaaaagat aaagataaat ataaaaaagg ccttgaaggc	300
cagaatgtct ttgtggtaaa agaattaatt gatccaaacg gtagactatc tactgttggt	360
ggtgtgacta agaaaaataa caaatcttct gaaactaata cacatttatt tgttaataaa	420
gtgtatggcg gaaatttaga tgcatacaatt gactcatttt taattaataa agaagaagtt	480
tcactgaaag aacttgattt caaaattaga aagcaattag ttgaaaaata tggtttatat	540
aaaggtacga ctaaatacgg taagatcact atcaatttga aagacgagaa aaaggaagta	600
attgatttag gtgataaact gcaattcgag cgcattgggtg atgtgttgaa tagtaaggat	660
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<210> 11

<211> 696

<212> DNA

<213> *Staphylococcus aureus* subsp. *aureus* MW2

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tatgatatta aagacttaca tcgatactac tcatcagaaa gttttgaatt cagtaatatt	180
agtggttaagg ttgaaaatta taacggttct aacgttgtac gctttaacca agaaaatcaa	240
aatcaccaat tattcttatc aggaaaagat aaagataaat ataaagaagg ccttgaaggc	300
cagaatgtct ttgtggtaaa agaattaatt gatccaaacg gtagactatc tactgttggt	360
ggtgtaacga agaaaaataa ccaatcttct gaaactaata cacctttatt tataaaaaaa	420
gtgtatggcg gaaatttaga tgcatacaatt gaatcatttt taattaataa agaagaagtt	480
tcactgaaag aacttgattt caaaattaga caacatttag ttaaaaatta tggtttatat	540
aaaggtacga ctaaatacgg taagatcact ttcaatttga aagatggaga aaagcaagaa	600
attgatttag gtgataaatt gcaattcgag cacatggggtg atgtgttgaa tagtaaggat	660
attcaaaata tagcagtgac tattaatcaa atttaa	696

<210> 12

<211> 606

<212> DNA

<213> *S.aureus*

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tcctccgaat ccttcgaatt ctccaacatc tccggtaaag ttgaaaacta caacgggtcc	120

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aacgttgttc gtttcaacca ggaaaaacag aaccaccagc tgttcctgct ggggtgaagac	180
aaagctaaat acaaacaggg tctgcagggg caggacgttt tcgttggttaa agaactgatc	240
gacccgaacg gtcgtctgtc caccgttggt ggtgttacca aaaaaaaca ccagtcctcc	300
gaaaccaaca tccacctgct ggtaacaaa ctggacggtg gtaacctgga cgctaccaac	360
gactccttcc tgatcaacaa agaagaagtt tccctgaaag aactggactt caaaatccgt	420
aaacagctgg ttgaaaaata cggctctgtac cagggtacct ccaaatacgg taaaatcacc	480
atcatcctga acggtggtaa aaaacaggaa atcgacctgg gtgacaaact gcagttcgaa	540
cgtatgggtg acgttctgaa ctccaaagac atcaacaaaa tcgaagttac cctgaaacag	600
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<210> 13

<211> 606

<212> DNA

<213> S.aureus

<400> 13	
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tcctccgaat ccttcgaatt ctccaacatc tccggtaaag ttgaaaacta caacggttcc	120
aacgttgttc gtttcaacca ggaaaaacag aaccaccagc tgttcctgct ggggtgaagac	180
aaagctaaat acaaacaggg tctgcagggg caggacgttt tcgttggttaa agaactgatc	240
gacccgaacg gtcgtctgtc caccgttggt ggtgttacca aaaaaaaca ccagtcctcc	300
gaaaccaaca tccacctgct ggtaacaaa ctggacggtg gtaacctgga cgctaccaac	360
gactccttcc tgatcaacaa agaagaagtt tccctgaaag aactggactt caaaatccgt	420
aaacagctgg ttgaaaaata cggctctgtac cagggtacct ccaaatacgg taaaatcacc	480
atcatcctga acggtggtaa aaaacaggaa atcgacctgg gtgacaaact gcagttcgaa	540
cgtatgggtg acgttctgaa ctccaaagac atcaacaaaa tcgaagttac cctgaaacag	600
atctaa	606